



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 8

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RECORD

Ref: 8EPR-SR

MAY 15 2006

ACTION MEMORANDUM AMENDMENT

SUBJECT: Action Memorandum Amendment Requesting Formal Approval of a Ceiling Increase for the Time-Critical Removal Action at the Libby Asbestos Site – Libby, Lincoln County, Montana.

FROM: Robert E. Roberts *Not E. Roberts*
Regional Administrator

TO: Susan Parker Bodine, Assistant Administrator
Office of Solid Waste and Emergency Response

THROUGH: Michael B. Cook, Director *Michael B. Cook*
for Office of Superfund Remediation and Technology Innovation (OSRTI).

Site ID#:

BC

Category of Removal:

Time Critical, NPL, EPA Fund-Lead

I. INTRODUCTION

The purpose of this Action Memorandum Amendment is to formally request and document your approval of a ceiling increase for the Libby Asbestos Site (Site) in Lincoln County, Montana. The previous Action Memorandum Amendment dated May 9, 2002 set forth the need and scope for additional cleanup activities at the Site. Those cleanup activities are progressing and are still of a time critical nature. However, the difficulty and expense of cleanup are greater than anticipated, and additional removal funding is required to continue the necessary time-critical removal actions. EPA Region 8 (Region 8) is also concurrently completing a remedial investigation and working toward publication of a Record of Decision (ROD) that will cover necessary, but non-time critical, response actions.

II. SITE CONDITIONS AND BACKGROUNDA. Site Description

The initial Action Memorandum and subsequent Amendments provide basic descriptions

of the vermiculite mine, vermiculite processing facilities, several contaminated properties, and the conditions found throughout the Libby Valley. Since the previous Action Memorandum Amendment of May 9, 2002, the Site became final on the National Priorities List (NPL) in October 2002. Additional investigation has focused on two major aspects: (1) evaluating conditions at individual residential and commercial properties throughout Libby as necessary to implement the time critical removal actions set forth in the May 2002 Action Memorandum Amendment, and (2) collecting data necessary to complete a Remedial Investigation/Feasibility Study (RI/FS) and publish a ROD.

The Libby Asbestos Site currently consists of eight operable units (OUs). OU00 and OU4 represent site-wide operable units for removal actions and remedial actions, respectively. OUs 1, 2, 3, 5 and 6 are described in the next section. OU7 represents the town of Troy, MT. Troy is located 15 miles west of Libby and has a population of 957. There are approximately 1,000 residences within the Troy Study Area Boundary that will be investigated to determine if cleanup is required. Due to its location, and to the fact that vermiculite uses were similar in Troy as they were in Libby, and due to the fact that mine workers also lived in Troy, the town is suspected of being contaminated in a nature similar to that of Libby. The Montana Department of Environmental Quality (MDEQ) and EPA signed a cooperative agreement which calls for MDEQ to begin investigations and screening of individual Troy properties in 2006. Background work is currently being conducted. The Troy response action (and related costs) is not addressed in this Action Memorandum Amendment.

B. Other Actions to Date

The previous Action Memorandum Amendment provided a description of various activities at the Site and their progress as of May 2002. These activities were completed or continued as necessary, and additional activities were started. For activities or locations that were NOT completed as of May 2002, but are completed now, an updated summary is found below:

| PREVIOUS ACTIONS | |
|-------------------------|---|
| Location | Action Description and Updated Status |
| Export Plant | The Export Plant is Operable Unit 1. Pursuant to a Unilateral Order from EPA, W.R. Grace demolished and disposed of four buildings on the property and removed approximately 17,500 cubic yards of contaminated soil and debris from the property. Region 8 completed remaining demolition work of one building in 2002. The lumber business formerly operating at this location was relocated by W.R. Grace in 2003 to a new location in Libby. Removal work here is complete. |

| | |
|---|--|
| Screening Plant | <p>This property consists of five distinct, contiguous parcels and makes up Operable Unit 2. All currently planned removal actions have been completed by 2005. (1) Raintree Nursery. Region 8 completed cleanup of this parcel in 2003. Approximately 17 acres were addressed, and 250,000 cubic yards of contaminated debris and soil were removed. Restoration of this parcel is essentially complete, with only punch-list items remaining. (2) North Side Parker Property. Region 8 completed cleanup here in 2004, addressing approximately four additional acres. (3) Flyway Property. Region 8 completed approximately ¼ of the cleanup of the Flyway parcel in 2002; W.R. Grace, pursuant to an Administrative Order on Consent with EPA, cleaned up the remainder of the parcel in 2004. In all, approximately sixteen acres were addressed, and approximately 50,000 cubic yards of soil were removed. EPA, working with the Montana Department of Transportation, capped a contaminated area on the Highway 37 right of way along the Flyway in 2005. (4) KDC Bluffs Property. Several areas of the KDC Bluffs parcel were cleaned up by EPA in 2001; some lower level contamination remains and will be evaluated for future Remedial Actions. (5) Wise Property. This is a property between Raintree Nursery and the Flyway. Cleanup was completed in 2005.</p> |
| Rainy Creek Road | <p>Rainy Creek Road and the mine itself make up Operable Unit 3. Rainy Creek Road is a forest service access road to the former vermiculite mine. It is highly contaminated, and site access remains restricted. Nearly half the road was paved, and semi-permanent decontamination stations were installed to facilitate soil disposal at the former mine. Soil disposal is ongoing. Operable Unit 3 is targeted for a future Remedial Investigation/Feasibility Study (RI/FS). EPA intends to begin negotiations with W.R. Grace regarding future conduct of the RI/FS. The RI/FS will help determine the need for future remedial actions.</p> |
| Libby High School and Middle School Tracks (OU4). | <p>Cleanup completed by 2002. Both tracks were restored in 2003. Work is complete.</p> |
| Siefke Property (OU4). | <p>Highly contaminated, large residential property which was identified early. Cleanup was completed in 2002, and restoration was completed in 2004.</p> |
| Johnson, Sanderson, Temple, Struck, Rice, Fuhlendorf, Spencer, and Westfall properties (OU4). | <p>Highly contaminated residential properties which were identified early. All cleanup and restoration was completed by 2003.</p> |
| Champion Haul Road (OU4). | <p>Cleanup was completed in 2003.</p> |

| NEW ACTIONS | |
|--|--|
| Location | Action Description and Updated Status |
| Riverside Park and Boat Ramp | Subsurface contamination was encountered during construction of a new park and boat ramp by the City of Libby in 2003. The parcel is contiguous to the former screening plant. EPA halted construction and cleaned the parcel in late 2003. Approximately 15 acres of soil were excavated to an average depth of two feet. Cleanup and restoration are complete. |
| Lincoln County Landfill Asbestos Cell | Region 8 constructed and operates a new cell at the Lincoln County Landfill that is used for disposal of vermiculite insulation and other construction debris. Construction of the cell was completed in 2003. The cell was expanded in 2004. Disposal operations are ongoing. |
| Burlington Northern Santa Fe Rail Yard | The Burlington Northern Santa Fe (BNSF) Rail Yard is Operable Unit 6. Pursuant to an Administrative Order on Consent with EPA, BNSF began cleanup of the contaminated rail yard in 2003 but had to cease work due to complexities with soil removal below the tracks. Work began again in 2004, most tracks were removed, and removal work is now complete. Most contaminated soils were removed, but some contamination was capped in place. Institutional controls for contamination that was left in place will be evaluated as part of the RI/FS and future ROD. |
| Former Stimson Lumber Mill | The former Stimson Lumber Mill represents Operable Unit 5. Region 8 conducted extensive sampling of the former lumber mill and has identified two primary areas requiring cleanup. The first of these, the former central maintenance building, was completed in 2005. The second, a former nursery area, was fenced off in 2004 and will be further investigated in 2006. |
| Systematic screening and cleanup of individual residential and commercial properties in Libby Valley | As the first phase of the Remedial Investigation (RI), and to gather the information required to make decisions on which properties require time critical removal action, Region 8 inspected and sampled approximately 3700 properties in 2002, 2003, and 2004. Most inspection is complete, though additional RI sampling is planned for 2006. As of December 2005, approximately 578 time critical properties have been cleaned up, including several properties that were recently identified. Work is ongoing. |

C. Current Actions

Region 8 is continuing systematic investigation and cleanup of individual properties throughout the Libby area described in the May 2002 Action Memorandum Amendment. There are multiple objectives to the investigation: (1) identify properties that meet criteria for time critical removal actions and require immediate cleanup, (2) collect information and data necessary to complete an RI/FS, Baseline Risk Assessment, and ROD, and (3) identify properties that may require future Remedial Action based upon criteria that will be set forth in the ROD.

Based on current knowledge, Region 8 *estimates* that at least 1400 residential/commercial

properties in and around Libby will require cleanup, of which approximately 850 remain (approximately 550 time critical removal action properties were cleaned up through October 2005). The 1400+ figure includes properties that meet criteria for time critical removal actions as well as estimates of the number of properties that may meet future criteria established for remedial action. While a large percentage of properties remaining to be cleaned up have conditions justifying time critical removal actions, cleanup of these properties using removal authority will generally continue only until publication of the ROD, at which time cleanup will continue using remedial authority. Remedial authority will then be used to clean up the remaining properties that meet time critical removal action criteria, and properties that may meet future criteria established for remedial action. EPA may encounter situations in the future for which removal actions are appropriate, even after a ROD is published. EPA will continue to prioritize properties that meet time critical removal action criteria and conduct cleanup as rapidly as resources and conditions permit. Region 8 expects to publish a ROD for residential/commercial cleanup (Operable Units 00 and 04) in 2006. The ROD will establish final cleanup levels and criteria which will enable Region 8 to more accurately quantify the total number of properties requiring cleanup.

In addition to conducting physical cleanups, EPA also continues to provide guidance, training, and assistance for Libby residents. Such actions include development and publication of fact sheets for residents and local contractors who may encounter vermiculite and asbestos, asbestos abatement and health and safety training for local contractors, and public warnings for areas of contamination discovered in public areas. These actions are intended to address ongoing exposures that cannot be immediately addressed through removal actions.

Region 8 has made significant progress toward a ROD despite the controversial and extremely complex nature of asbestos analysis and risk assessment. A few critical activities are highlighted below:

- In 2002, 2003, and 2004, Region 8 inspected and sampled approximately 3700 properties in the Libby area. EPA inspected for vermiculite insulation, visible vermiculite in soils, and collected soil and dust samples. Because contamination was generally placed at particular properties through human activities, rather than being spread uniformly by air or water, there was no clear pattern to the contamination. This warranted that each property in Libby be inspected. The information collected was used to determine which properties warranted time critical removal actions and to define the nature and extent of contamination across the Site.
- In 2002 and 2003, Region 8 designed and began conducting a Performance Evaluation (PE) Study to test the efficacy of existing and new analytical procedures for measuring asbestos in soil. Existing analytical methods are often not cost effective and are often unable to detect asbestos in soil at levels that are of likely health concern. The PE Study was extremely complex, primarily because some methods had to be modified and developed specifically for Libby, and there were no existing "standards" to test the methods against. Most of the PE Study is complete. The study helped Region 8 develop and validate a cost-effective, new analytical

method tailored to Libby soils. This method was used to analyze over 15,000 soil samples collected in residential yards.

- In 2003, Region 8 published the Draft Final Action Level and Clearance Criteria Technical Memorandum, which set forth additional screening level risk assessment calculations for Libby and the criteria for determining if a property warrants a time critical removal action under the current emergency response program (EPA Region 8, 2003).
- In 2002, 2003, and 2004 Region 8 worked extensively with EPA Headquarters and other EPA Regions to review and update the IRIS asbestos risk model. Developing and adopting a more accurate and accepted risk model is important for completion of a credible Baseline Risk Assessment in Libby.
- In 2004, Region 8 designed and conducted a post-cleanup sampling program to test the efficacy of the residential/commercial cleanup approach. This data is critical for evaluation of interim containment measures included in the removal action cleanup plan (such as leaving contamination in place in walls, or leaving contamination at depth) and for development of final cleanup levels and protocol (CDM, 2003c, 2004).
- Region 8 is currently conducting RI sampling to fill in remaining data gaps, focusing on evaluation of current cleanup protocols and low concentration exposures that will likely be the subject of future Remedial Actions.

D. State, Local, and Other Authorities Roles

There are no significant changes in roles from the May 9, 2002 Action Memorandum Amendment, other than the Montana Department of Environmental Quality (MDEQ) assuming the lead role for the investigation and screening of Troy, MT. The Agency for Toxic Substances and Disease Registry (ATSDR) and the Public Health Service (PHS) continue to work with local entities to address issues of public health. The United States Geologic Service (USGS) continues to provide EPA with technical assistance regarding the mineralogy, morphology, and measurement of Libby asbestos. Lincoln County and the City of Libby are active in several local advisory groups and coordinate directly with EPA on many issues regarding the removal actions and remedial investigations. In addition to their lead role for Troy, the MDEQ continue to coordinate with EPA on the implementation of all removal actions and remedial investigations.

III. THREATS TO PUBLIC HEALTH OR WELFARE OR THE ENVIRONMENT, AND STATUTORY AND REGULATORY AUTHORITIES

A. Despite significant progress on cleanup, conditions in Libby still present significant threats to public health. EPA has considered the factors that determine the appropriateness of a removal action described in Section 300.415(b)(ii) of the NCP, and at least two factors continue to be present in the Libby area:

(i). Actual or potential exposure to nearby human populations, animals, or the food chain from hazardous substances or pollutants and contaminants.

- Libby asbestos contaminated source materials (e.g., indoor dust, yard and garden soils, driveway materials, vermiculite insulation) are still found throughout the community. The Action Memorandum Amendment dated May 8, 2002 described these conditions in detail (EPA Region 8, 2002). Subsequent investigations have shown that about one-third of the approximately 4000 properties in the Libby area contain varying levels of contaminated source materials, such as vermiculite insulation or contaminated soils (CDM, 2002 and 2003a)
- Investigations have clearly shown elevated levels of Libby asbestos in the dust of resident's homes. (CDM, 2002, 2003a and 2003b; EPA Region 8, 2003) This dust contamination comes from several sources including but not necessarily limited to: contaminated soil at the property that is tracked into the home; contamination that was picked up at former vermiculite processing facilities in the past and brought home on clothes and equipment; releases of vermiculite insulation from the attic or walls.
- These asbestos contaminated source materials, when disturbed, may release asbestos fibers to the air resulting in complete exposure pathways. Actual exposure to these contaminated source materials may occur daily depending on the conditions and usage of the specific properties. Activities similar to those that are likely to be performed by area residents and workers can result in elevated concentrations of respirable asbestos fibers in air. Further, concentrations of fibers in air generated by disturbance of contaminated source materials may exceed OSHA occupational standards and EPA cancer risk guidelines (EPA Region 8, 2003; Weis, 2001; Miller, 2005).
- Asbestos fibers from the Libby mine site are hazardous to humans as evidenced by the occurrence of asbestos-related disease in area residents and workers. Workers and area residents exposed to asbestos fibers from the Libby mine site have been found to have increased mortality and morbidity from asbestos-related conditions, including asbestosis, pleural fibrosis, lung cancer, and mesothelioma. Asbestos-related lung diseases have also been observed in area residents with no direct occupational exposures, including family members of mine workers, and even in those with no known association with the vermiculite mining or processing activities (Weis, 2001; Miller, 2005).

(ii). High levels of hazardous substances or pollutants and contaminants in soils largely at or near the surface that may migrate.

- Soil contamination is prevalent throughout the Libby area. Region 8 has focused resources on cleaning up areas that were most highly contaminated, but many residential yards still contain measurable concentrations of Libby asbestos at or near the surface (CDM, 2002, 2003a, 2003b). These soils, if unaddressed, can cause direct exposure when disturbed through normal activities and can contaminate the interior of homes with asbestos-containing dust. Screening level risk calculations by Region 8 suggest that the contamination of indoor dust by outdoor soils is one of the most important exposure pathways in Libby (EPA Region 8, 2003).

- While most of the known larger contaminant sources and public areas (such as former vermiculite processing plants, schools, ball fields, and Riverside Park) have already been cleaned up, Region 8 has discovered several new "public" areas of contamination in Libby as well. These include J. Neils Park, the public golf course, the St. John's Hospital helipad, the right-of-way (ROW) along Highway 37, the public compost pile at the county landfill, and others. Some of these properties presented immediate, unacceptable risks and were cleaned up quickly. For other properties, such as portions of the former Stimson Mill, the Highway 37 ROW, and the public golf course, EPA has instituted interim containment measures such as fencing and/or issued public warnings. These properties and others were earmarked for possible future remedial action.

IV. ENDANGERMENT DETERMINATION

The actual or threatened releases from this Site, if not addressed by continuing to implement the time critical removal actions set forth in the original Action Memorandum and subsequent Amendments, may present an imminent and substantial endangerment to public health or welfare or the environment. The original Action Memorandum for the Site, dated May 23, 2000 (EPA Region 8, 2000), as well as subsequent Amendments and the administrative record, describe in detail the toxicity associated with Libby asbestos, the significantly elevated disease rate in Libby residents, and the variety of conditions present in and around Libby that lead to continuing exposures.

V. EXEMPTION FROM STATUTORY LIMITS

The Libby Action Memorandum dated May 23, 2000 provided the documentation required to meet the NCP Section 300.415(b)(2) criteria for a removal action and support EPA's determination regarding the applicability of CERCLA Section 104(c)(1) [NCP Section 300.415(b)(5)(i)] emergency exemption from the \$2 million and one year limits on removal actions. The most recent Action Memorandum Amendment dated May 9, 2002 expanded the scope of removal actions and raised the approved removal ceiling to \$55,635,000. It also found that conditions at the Site continued to satisfy the emergency exemption and met the CERCLA Section 104(c) [NCP Section 300.415(b)(5)(ii)] consistency exemption, which allows for a continued removal action over the cap when it is "otherwise appropriate and consistent with the remedial action to be taken." The conditions necessitating time critical removal action in Libby still exist and continue to satisfy both the emergency and consistency exemptions from the statutory limits. The difficulty and costs of mitigating these conditions have proven higher than estimated in the May 9, 2002 Action Memorandum. As a result, Region 8 has informally requested, and OERR has authorized, an additional ceiling increase to permit the continuation of removal activities in 2005. This Action Memorandum Amendment formally requests a ceiling increase under the already granted exemption from the statutory limits. This ceiling increase is necessary to continue the removal action authorized by the May 9, 2002 Action Memorandum Amendment through the expected completion of a Record of Decision.

An emergency exemption continues to be warranted to protect public health. Imminent

and substantial risks to the public health of Libby residents continue to exist (Miller, 2005). Due to the prevalence of past and current exposures and the observed high rate of disease, these risks are of an immediate and emergency nature. While conditions have improved considerably through EPA intervention, hundreds of properties meeting criteria set forth by EPA Region 8 for time critical removal actions have yet to be addressed. Exposures to an already impacted population continue to occur, and EPA is the only Agency with the resources to mitigate these conditions.

In addition to meeting the criteria for an emergency condition, removal actions are also expected to be appropriate and consistent with future remedial actions, and thus continue to also meet the criteria for a consistency exemption from the \$2 million and one year limits on removal actions as set forth in Section 300.415(b)(5)(ii) of the NCP. There are several reasons for this:

- Libby Asbestos, the contaminant of concern in Libby, is a naturally occurring mineral. There are no known viable treatment technologies that can diminish or reduce the toxicity of asbestos. To address exposures from asbestos, the most viable and commonly used physical cleanup options available are to remove it or to contain it. For time critical removal actions at the Site, Region 8 has used a combination of both as appropriate.
- Because asbestos use was widespread in the past, the *basic* approach for asbestos abatement is well understood. There are a limited number of options available for cleanup. Most importantly, when asbestos is determined to be friable, the preferred mechanism to address potential exposures is to remove the source.
- Investigations have shown that sources of Libby asbestos, including, but not limited to, contaminated soil, vermiculite insulation, and vermiculite processing wastes are prevalent throughout Libby. Past investigations have clearly shown that, when disturbed, these sources can release asbestos to the air and have the potential to contaminate indoor dust. The primary objective of the removal actions in Libby is to remove or isolate these sources. Any future remedial actions are likely to employ source removal as a key component of cleanup.
- To EPA's knowledge, large-scale removal of vermiculite insulation had not been attempted prior to EPA's cleanup in Libby. Due to the highly friable and pervasive nature of this material, it presented numerous technical challenges. Various cleanup techniques for dealing with vermiculite insulation and other media were evaluated during the initial cleanups of residential/commercial properties. Region 8 used this experience to evaluate the efficacy of various approaches and to refine our cleanup strategy. This information will be used in the RI/FS.
- While the *basic* approach to asbestos cleanup is well understood and relatively simple, the degree to which cleanup is necessary, and exactly which situations require cleanup, can be controversial. A large degree of uncertainty exists in the scientific community as to (1) what constitutes a "safe" level of asbestos in soil, dust, and other media and (2) how to effectively measure these levels. This makes establishment of site-specific action levels extremely challenging. As described in Section II (C) of this Amendment, EPA is currently working to resolve these difficult issues and continues to evaluate the effectiveness of interim containment measures instituted as part of removal actions.

However, to ensure that Removal Actions are protective and consistent with future remedial actions at Libby, Region 8 has taken a conservative approach and adopted protocols that attempt to minimize the possibility of having to clean up a property twice. In general, EPA only begins a cleanup if a property has conditions that warrant a time critical removal action, but once a cleanup begins, EPA addresses lower levels of contamination that may exist on some portion of the property. Post-cleanup sampling has thus far validated the efficacy and protectiveness of the cleanups (CDM, 2003c, 2004). This approach ensures the worst risks are addressed first and that cleanups are cost-effective, protective, and well accepted by the community and the State of Montana. The RI/FS will evaluate current cleanup protocols as well as other options for cleanup.

VI. PROPOSED ACTIONS AND ESTIMATED COSTS

A. Proposed Action Description

The Action Memorandum Amendment dated May 2002 set forth the proposed actions. While the basic need for cleanup and the general nature of the proposed actions has not changed, EPA has discovered that (1) more properties require cleanup than originally anticipated and (2) the difficulty and cost of cleanup are higher than originally anticipated.

B. Contribution to remedial performance

The Site was made final on the NPL in October 2002. While cleanup at the Site continues to be conducted using removal authority, the Site was transitioned to the Region 8 Remedial Program after final listing on the NPL. This was due to the scope and complexity of the work, and to ensure consistency with the long term response action. Information and experience gained during the removal actions is used to continually refine the process and to plan for future work. Likewise, as more information is learned about the nature of the contamination and the risks presented, adjustments to the cleanup approach are made as necessary. The most contaminated properties are targeted first and, as discussed in Section V of this Amendment, by taking steps such as removing all *detectable* asbestos from surface soils at those properties, EPA attempts to ensure that properties must only be cleaned once. This approach is protective as well as cost effective. It is expected that the cleanup approaches used during removal actions will be similar to, and consistent with, those used during remedial actions.

C. Description of alternative technologies

EPA attempts to employ the most appropriate technologies for addressing risks, but there are no known viable alternative technologies available at this time for addressing asbestos.

D. EE/CA

No EE/CA is required.

E. Applicable or relevant and appropriate requirements

See the Federal and State ARARs identified and/or discussed in the original Action Memorandum dated May 23, 2000.

F. Project Schedule

The total number of properties requiring clean up in and around Libby will not be known until publication of a ROD, expected in 2006. Based on current knowledge, Region 8 estimates that approximately 1400 properties will require cleanup, of which approximately 550 have already been addressed. While a large percentage of remaining properties have conditions described in the May 2002 Action Memo Amendment, cleanup using removal authority will continue only until publication of a ROD, at which time cleanup will continue using remedial authority. Remedial authority will then be used to clean up both classifications of properties: those that meet time critical removal action criteria but are not yet complete, and those that may meet future criteria established for remedial action. EPA may encounter situations in the future for which removal actions are appropriate, even after a ROD is published. EPA will also continue to prioritize cleanup of properties that meet time critical removal action criteria. Region 8 expects that approximately 170-200 properties can be cleaned up per year at current funding levels. The overall project schedule is contingent upon funding and the total number of properties requiring cleanup, but based on current knowledge, the current funding situation, and the actual date of a ROD, Region 8 estimates that approximately 1 year of time critical removal actions and 4-6 years of remedial actions remain. Approximately 220 properties are expected to be completed in calendar year 2006.

G. Estimated Costs

The ceiling increase is projected to cover two years of additional removal actions at production rates similar to those in 2003-2005 (170-200 properties expected to be cleaned per year). While the nature of cleanup has not fundamentally changed, the May 2002 Action Memorandum Amendment underestimated the scope, complexity, and cost of cleanup, especially with regards to interior cleaning and the removal of vermiculite insulation. Because of this, Region 8 has expended funds quicker than anticipated and the job is not complete. Region 8 has received informal approval for the expenditure of funds in excess of the prior ceiling. However, after two years of investigation and cleanup, Region 8 is able to more accurately forecast cleanup requirements, both on a per property basis and overall. Because of this increased accuracy, and for simplicity, this Amendment provides only a basic, cumulative breakout of the removal ceiling documented in the May 2, 2002 Action Memorandum Amendment and the proposed removal ceiling (Table 1). An estimate of other external costs that have been or will be incurred that do not count against the removal ceiling is also provided (Table 2).

Table 1. Proposed Removal Project Ceiling (current through March 2005).

| Category | Approved Ceiling (Action Memo Amendment dated May 2, 2002) | Proposed Ceiling Increase | Proposed Total |
|---------------------------------------|---|------------------------------|---------------------|
| Extramural Costs | \$45,525,000 | \$30,000,000 | \$75,525,000 |
| Contingency @ 20% of Extramural | \$9,100,000 | \$6,000,000 | \$15,100,000 |
| Intramural Costs | \$960,000 | \$100,000 | \$1,060,000 |
| TOTAL | \$55,635,000 | \$36,100,000 | \$91,735,000 |

Table 2. Other major expenditures not counted against ceiling. Note that amounts are approximate. Also note that these estimates do not include prejudgment interest, indirect costs and potential enforcement and litigation costs (including Department of Justice costs). These costs are not counted against the removal ceiling.

| Task | Previous Expenditures Through CY 2004 (approximate) | Planned Expenditures CY 2005-2006 (approximate) |
|---|---|--|
| Phase I and Phase II Removal Sampling Investigations | \$8,100,000 | 0 |
| Medical Screening Support | \$500,000 | 0 |
| Contaminant Screening Study (first phase of Remedial Investigation) | \$5,000,000 | \$500,000 |
| Remedial Investigation & Risk Assessment | \$2,500,000 | \$1,500,000 |
| Performance Evaluation/ Analytical Methods Study | \$1,000,000 | \$200,000 |
| USGS Support | \$2,000,000 | 0 |
| Community Involvement | \$500,000 | \$500,000 |
| Database Creation, Management, Quality Assurance, and Data Entry | \$2,000,000 | \$1,500,000 |
| TOTAL | \$21,600,000.00 | \$4,200,000.00 |

VII. EXPECTED CHANGE IN THE SITUATION SHOULD ACTION BE DELAYED OR NOT TAKEN

Delayed action will result in continued public exposure to unsafe amounts of amphibole asbestos. This will increase the risk to public health and continue to burden an already impacted community.

VIII. OUTSTANDING POLICY ISSUES

There are no new policy issues or considerations.

IX. ENFORCEMENT

On March 30, 2001, the Department of Justice, on behalf of EPA, filed a lawsuit in the District of Montana against W.R. Grace & Co. and related entities to recover costs EPA has and will incur as a result of the Libby Asbestos Site response action. On December 19, 2002 the district court ruled, among other things, that EPA's response activities at the site were not inconsistent with the NCP. On August 26, 2003, the district court ordered W.R. Grace to reimburse EPA \$54,527,081.11 for response costs EPA had incurred through December 31, 2001, and issued a declaratory judgment on liability for future response costs. (The district court later awarded an additional \$3,742,453.87 in pre-judgment interest.) W.R. Grace appealed the district court's rulings regarding consistency with the NCP, the amount of costs incurred through December 31, 2001, and the declaratory judgment. (But not the award of pre-judgment interest.)

On December 1, 2005, the Court of Appeals for the Ninth Circuit affirmed the district court judgment in full. It is not currently known whether W.R. Grace will seek additional judicial review of the district court judgment. It is important to note that W.R. Grace is currently reorganizing pursuant to Chapter 11 of the Bankruptcy Code. Any payment of the judgment awarded in this case will be made pursuant to a Plan of Reorganization approved by the Bankruptcy Court. The timing of approval of a Plan of Reorganization cannot be estimated at this time.

X. RECOMMENDATION

This decision document represents the selected removal action for the removal of Libby asbestos sources from targeted homes, businesses, and public buildings at the Libby Asbestos Site in Lincoln County, Montana. The proposed removal actions have been developed in accordance with CERCLA as amended and are consistent with the NCP. The decision is based on the administrative record for the Site.

Conditions at the Site continue to meet the NCP [40 CFR § 300.415(b)] criteria for a removal action. The NCP [40 CFR § 300.415(b)(5)(i)] and [40 CFR § 300.415(b)(5)(ii)] criteria for exemptions from the statutory limits that have been previously documented continue to exist. I recommend your formal approval of the proposed removal action ceiling increase.

Approve: Susan Parker Bodine Date: 6-2-06

Susan Parker Bodine,
Assistant Administrator
Office of Solid Waste and Emergency Response

Disapprove: _____ Date: _____

Susan Parker Bodine,
Assistant Administrator
Office of Solid Waste and Emergency Response

REFERENCES

CDM, 2002. Sampling and Analysis Plan, Remedial Investigation, Contaminant Screening Study, Libby Asbestos Site, Operable Unit 4. April 30, 2002.

CDM 2003a. Sampling and Analysis Plan, Revision 1, Remedial Investigation, Contaminant Screening Study, Libby Asbestos Site, Operable Unit 4. May, 2003

CDM 2003b. Pre-Design Inspection Work Plan, Libby Asbestos Site, November 25, 2003.

CDM 2003c. Sampling and Analysis Plan Addendum, Post-Cleanup Evaluation Sampling, Remedial Investigation, Contaminant Screening Study, Libby Asbestos Site, Operable Unit 4. December 1, 2003.

CDM 2004. Technical Memorandum: Contaminant Screening Study, Post Cleanup Evaluation Sampling, Libby Asbestos Site, Operable Unit 4. September 1, 2004.

EPA Region 8, 2000. Action Memorandum, Libby Asbestos Site, May 23, 2000.

EPA Region 8, 2002. Action Memorandum Amendment, Libby Asbestos Site, May 8, 2002.

EPA Region 8, 2003. Draft Final US EPA Technical Memorandum: Libby Asbestos Site Residential/Commercial Cleanup Action Level and Clearance Criteria. December, 15, 2003.

Miller, 2005. *Amphibole Mineral Fiber Contamination of Various Source Materials in Residential and Commercial Areas of Libby Pose an Imminent and Substantial Endangerment to Public Health*. Memorandum from Aubrey Miller, USEPA Regional Medical Officer and

Site. Dated 9/29/2005. US EPA, Region 8

Weis, 2001. *Amphibole Mineral Fibers in Source Materials in Residential and Commercial Areas of Libby Pose an Imminent and Substantial Endangerment to Public Health.*

Memorandum from Christopher P. Weis, USEPA Regional Toxicologist, to Paul Peronard, USEPA On-Scene Coordinator for the Libby Asbestos Site. Dated 12/20/2001. US EPA, Region 8.



DATE: 02/01/06

| ROUTING AND TRANSMITTAL SLIP LIBBY ACTION MEMO AMENDMENT |
|---|
| Bert Garcia |
| Kateory Land |
| Sharon Kercher |
| Matthew Cohn |
| Michael Risher (please return to Peggy Churchill post concurrence) |
| Max Dodson |

COMMENTS:

This is the second round of concurrence on the Libby Action Memo Amendment. I am sending around another copy because DOJ had significant comments on the document. The most important of these comments was that we had already requested and been granted a consistency exemption in the May 2002 Action Memo Amendment. As a result, there is no need to request a consistency exemption in this amendment. The sole purpose of this amendment is to request a ceiling increase, and that is made clear in Section I and V. Inside the folder you will find the concurrence copy on the left hand side and a highlighted version on the right hand side. The highlighted sections show the significant changes. Underneath the highlighted copy you will find the previous concurrence copies of the amendment including any comments you may have made.

Thanks for your time and attention to this. Please call Peggy Churchill with any questions at X6137. EPR:SR

YES

MAX - DO YOU WANT A BRIEFING
ON THIS BEFORE YOU SIGN?

I'VE ASKED PEGGY TO SCHEDULE
A BRIEFING FOR ROBBIE,
PROBABLY NEXT WEEK

2/16/06

-BERT